



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/813,792

03/30/2004

Yasushi Sasagawa

FUJO 21.086

5194

26304

7590

11/17/2009

KATTEN MUCHIN ROSENMAN LLP

575 MADISON AVENUE

NEW YORK, NY 10022-2585

EXAMINER

JAIN, RAJ K

ART UNIT

PAPER NUMBER

2472

MAIL DATE

DELIVERY MODE

11/17/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,792	<b>Applicant(s)</b> SASAGAWA ET AL.	
	<b>Examiner</b> RAJ JAIN	<b>Art Unit</b> 2472	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 11-20, 34 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 13-20, 34 and 36 is/are rejected.
- 7) ☒ Claim(s) 12 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 11, 13, 17, 20, 34 and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst et al (USP 6,581,166 B1) in view of Bare (USP 6,577,600 B1).

Regarding claims 1, 11, 34 and 36, Hirst discloses a control packet processing apparatus 21 (Fig. 1, abstract, a pinging mechanism control packet is processed for routing) for receiving a control packet used to exchange a variety of information among devices that support a spanning tree protocol (Fig. 2, col 4 lines 55-60), comprising: a receiving device receiving the control packet (Fig. 2, 109, 111 receive packets); a buffer device storing the received control packet (Fig. 2, computers 101, 103, 105 have buffers for incoming packets); and

a control device autonomously transferring the packet stored in the buffer device to a processing unit in a specific cycle when no control packet is received for a specific period (Fig.6, col 4 lines 55-60; col 9 line 50-67; col 11 lines 29-44, a pinging mechanism is employed to determine packet status within a specific time interval for rerouting of packets).

Hirst fails to disclose preventing processing unit from reconfiguring topology of a spanning tree.

Bare discloses preventing processing unit from reconfiguring topology of a spanning tree (col 82 lines 3-43, load balancing with path costs allows for preventing of reconfiguring a topology change by increasing the cost of the non-load port so as to prevent a topology change).

Spanning tree protocol with load balancing permits the operation of multiple links throughout a network involving multiple switches, and which provide for improved utilization of an aggregate bandwidth of all paths in the network.

Thus it would have been obvious at the time the invention was made to incorporate the teachings of Bare within Hirst so as to improve overall network bandwidth efficiency.

Regarding claims 13, Hirst discloses input instructions as part of an overall set of algorithms to stop and/or start control packet transmission (claim 1).

Regarding claim(s) 17 Hirst discloses control packet processing apparatus receives a control packet instructing said control packet processing apparatus to restart transmitting the control packet, said program enables said control packet processing apparatus to stop said transfer process (Fig. 3 & 9).

Regarding claim(s) 20 Hirst discloses wherein when said control packet processing apparatus receives a subsequent control packet, said program enables said control packet processing apparatus to stop said transferring (Fig. 3 & 9).

Claims 15, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst et al (USP 6,581,166 B1) in view of Bare (USP 6,577,600 B1) and further in view of Chin et al (US 6,298,061 B1).

Hirst and Bare fail to disclose a bridge protocol data unit having a flag instructing a transmission stoppage as a control packet.

Chin discloses a bridge protocol data unit having a flag instructing a transmission stoppage as a control packet (col 3 lines 15-30; col 8 lines 50-60). Bridge protocol data unit messaging allows a spanning tree calculation that is loop free.

Thus it would have been obvious at the time the invention was made to incorporate the teachings of Chin within Hirst so as to have a loop free spanning tree.

***Allowable Subject Matter***

Claims 12 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed July 30, 2009 have been fully considered but they are not persuasive.

Examiner withdraws Objections to claims 12, 15, 16 and 18 in light of Applicants amendments.

With respect to claim(s) 1, Applicant contends "Bare merely describes the cost of the non-load balance port without any discussion of preventing the processing unit from re-configuring a topology of a spanning tree.....Triggering a topology change notification with spanning tree does not teach or suggest preventing the processing unit from re-configuring a topology of a spanning tree. Hence, the noted feature, namely "preventing the processing unit from re-configuring a topology of a spanning tree" is a distinction over Bare".

Examiner respectfully disagrees, Bare states in col 82 lines 3-10,

*Since Spanning tree sums path costs from the root switch, it may be possible for the load balance path to appear as a higher cost path in some configurations depending on which switch becomes the root. To prevent this scenario, the code in a load balance switch must dynamically increase the cost of any non-load balance ports that have been put into the forwarding state if the load balance port has been blocked by spanning tree protocol.*

A topology change is "prevented" based on the sums of the link cost in other words to minimize the sums of all links within a given topology, thus a processing unit is prevented from reconfiguring a topology of a spanning tree if the reconfiguration in turn would result in a topology that is cost prohibitive.

Thus based on above reasoning, Examiner asserts the combination of Hirst in view of Bare does disclose the limitations of claim 1 and therefore the rejection to claim 1 is sustained.

The rejection to claims 11, 34 and 36 is sustained as they recite features similar to claim 1 and thus the reasoning is same as for claim 1.

Furthermore, the rejection to claims 13, 15-20 is sustained based on limitations be met under appropriate cited art(s).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJ JAIN whose telephone number is (571)272-3145. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/813,792

Page 6

Art Unit: 2472

***/Raj K. Jain/***

Examiner, Art Unit 2472

/William Trost/

Supervisory Patent Examiner, Art Unit 2472